Primary Corridor Transportation Project

Honolulu, Hawaii

(November 2002)

Description

The City and County of Honolulu Department of Transportation Services (DTS) is proposing the Primary Corridor Transportation Project, a 30.3-mile Bus Rapid Transit (BRT) system, connecting Downtown Honolulu with the University of Hawaii, Waikiki Beach, Pearl City, Pearl Harbor, Waipahu, and Kapolei. The proposed system would include 37 stations and several BRT routes that serve markets along H-1 from Kapolei to the Honolulu CBD, a circulator service within the Honolulu CBD, and extensions to the University of Hawaii and Waikiki Beach. The proposed project would use high occupancy vehicle lanes along H-1 and street right-of way within the urban areas of Honolulu. The project is intended to improve mobility for residents and employees throughout the corridor, where transportation capacity is limited by environmental conditions, and provide an alternative transportation mode other than severely congested roadways. Future land development is restricted by the island's steep and environmentally sensitive topography, thus existing transportation facilities must be able to accommodate increasing densification of land uses in the proposed corridor. The proposed BRT system would increase transportation capacity on existing right-of-way without taking additional scarce land.

Summary Description	
Proposed Project:	Bus Rapid Transit Line 30.3 Miles, 37 Stations
Total Capital Cost ($YOE):	$700.5 Million
Section 5309 New Starts Share ($YOE):	$231.6 Million (33%)
Annual Operating Cost (2025 $YOE):	$33.6 Million
Ridership Forecast (2025):	75,600 Average Weekday Boardings 40,200 Daily New Riders
Opening Year Ridership Forecast (2006):	63,100 Average Weekday Boardings
FY 2004 Finance Rating:	**Medium**
FY 2004 Project Justification Rating:	**High**
FY 2004 Overall Project Rating:	**Recommended**

The overall project rating of *Recommended* is based on the transit supportive land use, good cost-effectiveness, and significant mobility improvements estimated to result from the proposed investment. The overall project rating applies to this *Annual Report on New Starts* **and reflects conditions as of November 2002.** Project evaluation is an ongoing process. As New Starts projects proceed through development, the estimates of costs, benefits, schedules and impacts are refined. **The FTA ratings and recommendations will be updated annually to reflect new information, changing conditions, schedules, and refined financing plans.**

Status

Recent planning efforts for the Primary Corridor Transportation Project began in 1998, with a series of public involvement efforts known as Oahu Trans 2K. A Major Investment Study/Draft Environmental Impact Statement was undertaken in 1999 and 2000. In June of 1999, the proposed Honolulu BRT project was selected to participate within FTA's BRT Demonstration program. The regional Bus Rapid Transit System was selected as the Locally Preferred Alternative in November of 2000. The Oahu Metropolitan Planning Organization adopted the Locally Preferred Alternative into the Oahu Regional Long Range Transportation Plan in April of 2001. FTA approved the initiation of Preliminary Engineering in July 2001. The FTA circulated a Draft Environmental Impact Statement (EIS) in March of 2002, and the Honolulu Department of Transportation Services plans to complete the Final EIS in the fall of 2002, begin Final Design in the spring of 2003, and be ready for construction by 2004.

Section 3030(b)(73) of TEA-21 authorizes the "Honolulu Bus Rapid Transit Project." Through FY 2002, Congress has appropriated $14.36 million in Section 5309 New Starts funds for the project.

Evaluation

The following criteria have been estimated in conformance with FTA's *Reporting Instructions for the Section 5309 New Starts Criteria*, updated in June 2002. The project will be reevaluated for next year's New Starts report and when it is ready to advance into Final Design.

Project Justification

Rating: High

The *High* project justification rating reflects the high densities and transit supportive land uses in the corridor and the project's strong cost-effectiveness. Based on 2000 Census data, there are an estimated 8,600 low-income households within a ½-mile radius of the MOS corridor, representing 11 percent of all households located within ½-mile of the corridor. There are an estimated 271,135 jobs within ½-mile of the stations. The Honolulu metropolitan area is designated as an "attainment area" for air quality conformity. The incremental cost per incremental trip of the proposed project is $7.17.

Project Justification Quantitative Criteria		
Mobility Improvements Rating: Medium		
	New Start vs. Baseline	
Average Employment Per Station	7,328	
Average Low Income Households Per Station	232	
Transportation System User Benefit Per Project Passenger Mile (Minutes)	2.2	
Environmental Benefits Rating: Medium		
Criteria Pollutant s Reduced (tons)	**New Start vs. Baseline**	
Carbon Monoxide (CO)	1,570	
Nitrogen Oxide (NO_x)	4	
Hydrocarbons	140	
Particulate Matter (PM_{10})	2	
Carbon Dioxide (CO_2)	6,400	
Annual Energy Savings (million) BTU	73,540	
Cost Effectiveness Rating: High		
	New Start vs. Baseline	
Cost per Transportation System User Benefit (current year dollars/hour)	$7.38	
Operating Efficiencies Rating: Medium		
	Baseline	**New Start**
System Operating Cost per Passenger Mile (current year dollars)	$0.26	$0.26

[ ] indicate an increase in emissions.

Existing Land Use, Transit-Supportive Land Use Policies and Future Patterns Rating: High

The *High* rating reflects the dense urban character of the corridor and the existing transit-supportive corridor policies and zoning.

Existing Conditions: The corridor study area is the most urban region in Oahu and within the State of Hawaii. Over 50 percent of Oahu's population and over 80 percent of employment is concentrated within the corridor. The population of the corridor is anticipated to increase from 494,000 to 608,000 and employment in the corridor is anticipated to increase from 396,000 to 515,000 by 2025. The proposed BRT would provide access to the major activity centers and trip generators in the area including Pearl Harbor, Pearlridge Center, Honolulu International Airport, Pearl City, Halawa Valley, Mapunapuna, Kalihi, Iwelei and Kakaako Industrial districts, downtown Honolulu, the Capital district, Ala Moana Center, Waikiki, and the University of

Hawaii. Honolulu is a linear city that is bounded by the Pacific Ocean on one side and a mountain range on the other which concentrates development in the study area corridor, which bisects the urbanized area. As a result, existing land use densities are among the highest in the United States.

Future Plans Policies and Performance: The City and County of Honolulu exercise jurisdiction over regional land use and development patterns on most of the island of Oahu. The City and County of Honolulu is committed to directing development activity to areas including the Primary Urban Core (PUC), the Ewa planning region, and certain communities in Central Oahu, while containing urban and suburban development. Thus, new development is focused towards the PUC area and Ewa planning regions, while limiting growth within the remaining areas. The City and County of Honolulu use urban growth boundaries, zoning, and the Hawaii State Land use code to control development activity and to support higher density, mixed use development. Additionally, the City of Honolulu has enacted parking policies to limit the construction of work-based parking and does not require high levels of parking as a condition for residential development approval. Parking costs average over $200 per month in downtown Honolulu.

Other Factors

The City and County of Honolulu have geographic barriers to expanding existing transportation capacity and the land area available for development. Generally, the development potential extends along narrow valley corridors that are bordered by steep slopes on one side and the Pacific Ocean on the other. The existing land use patterns are serviced by a transportation system that is also constrained by topography and operates at capacity. The project proposed is one of a few remaining measures that can be undertaken to increase transportation capacity in the proposed corridor.

Local Financial Commitment

Rating: Medium

The rating of *Medium* for local financial commitment is determined by the *Medium* rating for the Capital Operating Plan and the *Medium* rating of the Operating Financial Plan.

Proposed Non-Section 5309 New Starts Share of Total Project Costs: 66%

Rating: High

The current financial plan for the Primary Corridor Transportation Project proposes Section 5309 New Starts funding, Section 5309 Rail Modernization funding, FHWA flexible funding, City bond funds, and City Highway funds.

Locally Proposed Financial Plan		
Proposed Source of Funds	**Total Funding ($million)**	**Percent of Total**
Federal:		
FTA Section 5309 New Starts	$231.6	33.1 %
FTA Section 5307	$20.3	2.9 %
FHWA Flexible Funds	$160.0	22.8%
Local:		
General Obligation Bonds	$286.2	40.9 %
City Highway Fund	$2.4	0.3 %
Total:	**$700.5**	100.0 %

NOTE: Funding proposal reflects assumptions made by project sponsors, and not DOT or FTA assumptions. Total may not add due to rounding.

Stability and Reliability of Capital Financing Plan
Rating: Medium

The *Medium* rating reflects the level of capital funding committed to the proposed project, offset by the uncertainties in the capital costs at this stage of project development.

Agency Capital Financial Condition: The average age of the bus fleet is eight years. In addition, the City and County of Honolulu have a strong general obligation bond rating (Aa3 from Moody's and AA- from Standard & Poor's). The 23-year cash flow projects positive cash balances through FY 2025.

Capital Cost Estimates and Contingencies: The capital-cost estimate is adequate for this stage of project development. However, the estimate does not clearly state the provision of contingencies to cover potential cost increases. Cash balances are not sufficient to cover potential funding shortfalls or cost increases, but the City of Honolulu's debt capacity is more than sufficient to cover such shortfalls or increases. The bonding capacity (after bonds are issued for any year within the analysis horizon) reaches a minimum of $328.2 million in FY 2007 and a maximum of $1,092 million in FY 2025. The plan has the flexibility to accelerate or delay individual projects, based on funding availability and priorities set by Oahu Metropolitan Planning Organization (OMPO).

Existing and Committed Funding: The Primary Corridor Transportation Project is included in the region's financially constrained long range plan. The Honolulu City Council passed a resolution in November 2000 that selected the BRT alternative as the Locally Preferred Alternative and adopted the financial plan for the project. This allows the city to commit general obligation bonds and other city funds as part of the annual budget appropriation process. All proposed funding sources for the Primary Corridor Transportation Project come from existing sources. About 66 percent of the sources are committed, including the City General Obligation Bonds, City Highway fund and Section 5307 formula funds.

New and Proposed Sources: No new sources of funding are proposed.

Stability and Reliability of Operating Finance Plan
Rating: Medium

The *Medium* rating reflects the good operating condition of the DTS and the strength of the 20-year operating plan.

Agency Operating Condition: The DTS is in good operating condition. The DTS relies on farebox revenues, annual funding appropriations from the City, and Section 5307 funding. In the previous year the DTS raised fares for transit services, with little opposition, which increased operating revenues.

Operating Cost Estimates and Contingencies: Operating cost estimates for the Primary Corridor Transportation Project are not explained in the operating plan. Cash balances for the operating plan are projected at zero, assuming that any remaining expenditures not covered by fare and formula funds revenues are paid with General Fund revenues.

Existing and Committed Funding: Operating funds are 100 percent committed. The operating sources are existing. The estimated operating cost of $33.6 million is 29 percent of the total transit system operating cost.

New and Proposed Funding Sources: No new sources of operating funding are proposed.

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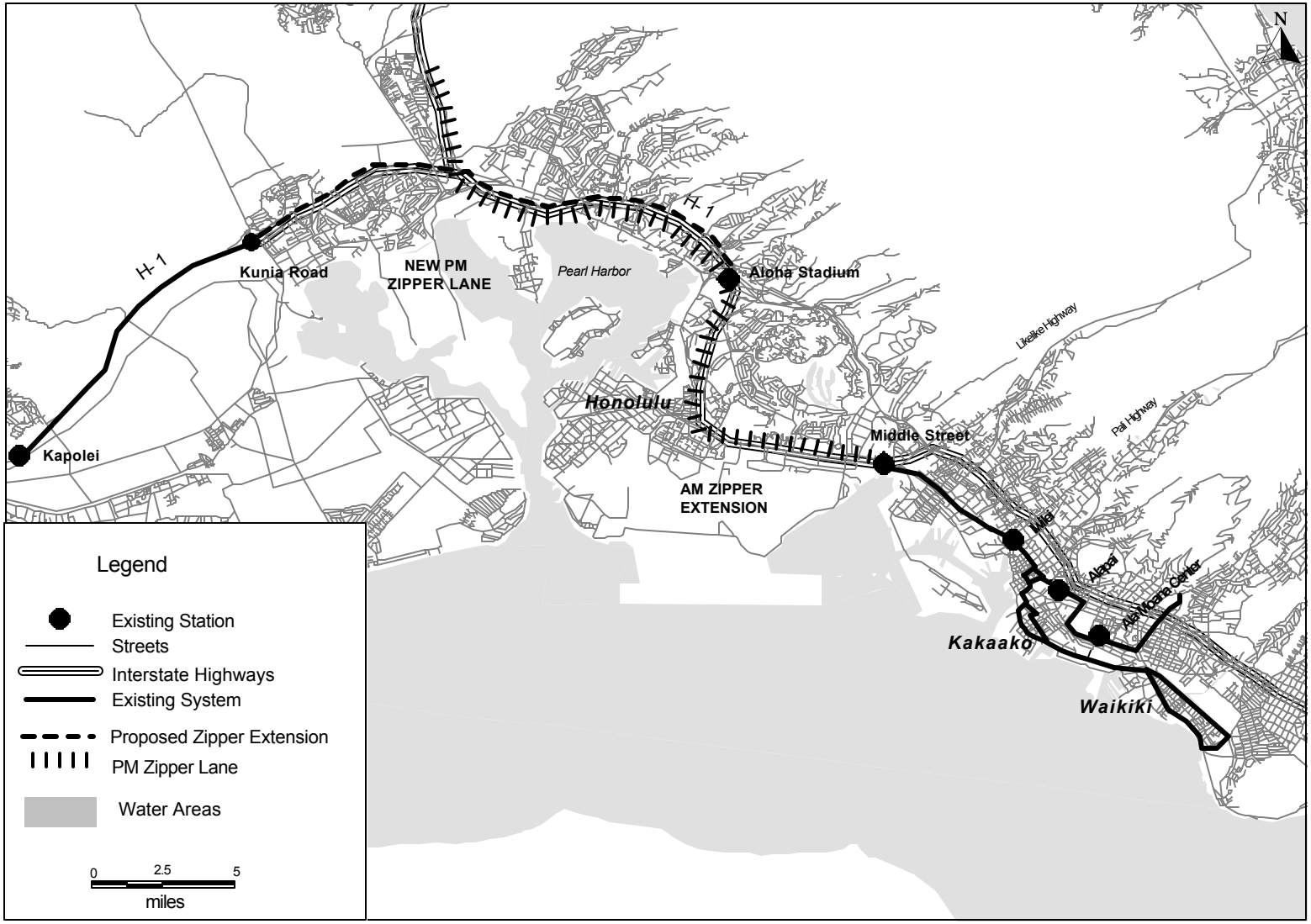
Honolulu, Hawaii



Federal Transit Administration, 2002